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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/762,243	02/05/2001	Yoram Kapulnik	01/21632	2822

7590 08/19/2002  
G E Ehrlich  
Anthony Castorina  
2001 Jefferson Davis Highway Suite 207  
Arlington, VA 22202

EXAMINER

KUBELIK, ANNE R

ART UNIT	PAPER NUMBER
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1638

DATE MAILED: 08/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/762,243	Applicant(s) KAPULNIK ET AL.	
	Examiner Anne Kubelik	Art Unit 1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-53 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

*Election/Restrictions*

1. The restriction mailed 21 June, 2002, is withdrawn in favor of the restriction below:
2. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions that are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-2, 7, 9-14, 18-19, 24-28, 31-32, 35-38 and 50-53, all in part, and claims 4, 6, 20-22, 29 and 33 in their entirety, drawn to a method of effecting degeneration of somatic plant tissue by expressing a protein that binds biotin, and plants thereby obtained.

Group II, claim(s) 1-2, 5, 8-14, 18-19, 23-28, 30-32, 34-38 and 50-53, all in part, drawn to a method of effecting degeneration of somatic plant tissue by expressing a protein that binds iron, and plants thereby obtained.

Group III, claim(s) 1-2, 5, 8-14, 18-19, 23-28, 30-32, 34-38 and 50-53, all in part, drawn to a method of effecting degeneration of somatic plant tissue by expressing a protein that binds zinc, and plants thereby obtained.

Group IV, claim(s) 1-2, 5, 8-14, 18-19, 23-28, 30-32, 34-38 and 50-53, all in part, drawn to a method of effecting degeneration of somatic plant tissue by expressing a protein that binds calcium, and plants thereby obtained.

Group V, claim(s) 1-2, 5, 8-14, 18-19, 23-28, 30-32, 34-38 and 50-53, all in part, drawn to a method of effecting degeneration of somatic plant tissue by expressing a protein that binds thiamin, and plants thereby obtained.

Group VI, claim(s) 3, 15, 39-40 and 46-49, all in part, drawn to a method of effecting degeneration of plant tissue by expressing a protein that binds an essential factor and further comprising introducing an antisense neutralizing agent into the cells.

Group VII, claim(s) 3, 15, 39-40 and 46-49, all in part, drawn to a method of effecting degeneration of plant tissue by expressing a protein that binds an essential factor and further comprising introducing a ribozyme neutralizing agent into the cells.

Group VIII, claim(s) 3, 39-40 and 46-49, all in part, and claim 16 in its entirety, drawn to a method of effecting degeneration of plant tissue by expressing a protein that binds an essential factor and further comprising introducing a antagonist protein neutralizing agent into the cells.

Group IX, claim(s) 3, 39-40 and 46-49, all in part, and claim 17 in its entirety, drawn to a method of effecting degeneration of plant tissue by expressing a protein that binds an essential factor and further comprising topically applying a plant essential factor onto the cells.

Group X, claim(s) 3, 39-40 and 46-49, all in part, and claims 41 and 43-44 in their entirety, drawn to a method of effecting degeneration of plant tissue by expressing a protein that binds a biotin essential factor and further comprising introducing a neutralizing agent into the cells.

Group XI, claim(s) 3, 39-40, 42 and 45-49, all in part, drawn to a method of effecting degeneration of plant tissue by expressing a protein that binds a iron essential factor and further comprising introducing a neutralizing agent into the cells.

Group XII, claim(s) 3, 39-40, 42 and 45-49, all in part, drawn to a method of effecting degeneration of plant tissue by expressing a protein that binds a zinc essential factor and further comprising introducing a neutralizing agent into the cells.

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Group XIII, claim(s) 3, 39-40, 42 and 45-49, all in part, drawn to a method of effecting degeneration of plant tissue by expressing a protein that binds a calcium essential factor and further comprising introducing a neutralizing agent into the cells.

Group XIV, claim(s) 3, 39-40, 42 and 45-49, all in part, drawn to a method of effecting degeneration of plant tissue by expressing a protein that binds a thiamin essential factor and further comprising introducing a neutralizing agent into the cells.

3. The inventions listed as Groups I-XIV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The technical feature linking the groups appears to be a method of effecting degeneration of plant tissue by expressing a protein that binds an essential factor.

However, Howard et al WO96/40949) cited in the PCT search report, teach plants transformed to express avidin in anther tissue; these plants are thus male-sterile (see 17-19). Howard et al also teach methods of restoring fertility with a neutralizing factor (pg 20-23). These teachings renders claim 1, among others, not novel.

Thus, the technical feature linking the groups is not special and the groups are not so linked under PCT Rule 13.1.

Additionally, the claimed methods produce different products and/or different results that are not coextensive and that do not share the same special technical feature.

4. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

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Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne R. Kubelik, whose telephone number is (703) 308-5059. The examiner can normally be reached Monday through Friday, 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson, can be reached at (703) 306-3218. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9307 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the patent analyst, Sonya Williams, at (703) 305-2272.

Anne R. Kubelik, Ph.D.  
August 16, 2002



AMY J. NELSON, PH.D  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1600